

REMARKS

Claims 18 through 43 and 47 through 49 are pending in the present application. Claims 1 through 17 were previously canceled. Claims 44 through 46 are canceled by the present amendment, and claims 47 through 49 are newly added.

Sections 1 and 2 of the Office Action require Applicant to submit a new or revised drawing, and more particularly, section 2 of the Office Action objects to the drawings on the grounds that there is not single drawing that illustrates the invention as it is claimed, and also that there is no drawing suitable for publication in the Official Gazette. Applicant is submitting herewith a new figure, namely FIG. 7, the features of which were presented in FIGS. 1 – 6 as originally filed. Applicant respectfully submits that FIGS. 1 – 7, as now presented, adequately illustrate the features of the claims. Applicant also submits that FIG. 7 is suitable for publication in the Official Gazette. Accordingly, Applicant respectfully requests that the Office withdraw the objection to the drawings.

Applicant amended the specification to provide a description of FIG. 7. The description of FIG. 7 is based on material that was presented elsewhere in the specification as filed.

In section 4 of the Office Action, claims 18 through 46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite and as being incomplete. Pages 4 through 6 of the Office Action itemize this rejection as it is being applied to individual claims. Several claims are rejected on the grounds that there is an insufficient antecedent basis for certain recitals. However, in reviewing the claims, Applicant found that all terms used in the claims were properly introduced, and that therefore, there was no lack of antecedent basis for any of the recitals. On 19 OCT 2005, Applicant made an informal telephone call to Examiner Ponomarenko and asked for clarification of the rejections. Examiner Ponomarenko explained that the Examiner's use of the phrase "insufficient antecedent basis" is meant to convey that the Examiner could not recognize a structural or functional relationship between certain elements of the claims. The Examiner also indicated that the correction to the drawings would likely help to facilitate an understanding of the claims. Accordingly, Applicant clarified several of the claims, and as

mentioned above, added a new figure. Below, Applicant addresses each of the rejections as itemized on pages 4 through 6 of the Office Action, in the same order as the rejections are being presented in the Office Action.

The Office Action indicates that claims 18, 30 and 44 are vague, indefinite and incomplete for omitting essential elements. Applicant amended claims 18 and 30 to address this issue. Claim 44 is canceled. FIG. 7 shows (a) a DC-to-DC converter 725 and a controller 730, for support of the recitals of claim 18, and (b) a first DC-to-DC converter 725, a second DC-to-DC converter 735, and a bridge 742 for support of the recital of claim 30.

The Office Action indicates that in claim 30, there is insufficient antecedent basis for the recitation of "voltages are employed." Applicant amended claim 30 to recite "a bridge that couples said first and second low DC voltages to provide a low DC voltage feed."

The Office Action indicates that in claim 22, there is insufficient antecedent basis for "flywheel that stores energy." Applicant amended claim 22 to recite that "said source includes a flywheel that stores energy." Such a flywheel is shown, for example, in FIG. 1, as a DC flywheel system 128.

The Office Action indicates that claim 25 is incomprehensible. Applicant amended claim 25 to recite "a bridge that couples an output from a first high DC voltage source and an output from a second high DC voltage to provide said high DC voltage to said converter." FIG. 7 shows bridge 708, which couples an output from high DC voltage source 705 and an output from high DC voltage 710 to provide a high DC voltage to converter 725.

The Office Action indicates that in claims 26 and 33, there is insufficient antecedent basis for the phrase "selected from the group". Each of claims 26 and 33 recites a Markush group. Applicant respectfully submits that claims 26 and 33 are fully proper.

The Office Action indicates that claim 32 has no antecedent basis for selection between first and second voltages. Applicant amended claim 32 to recite a first bridge and a second bridge. FIG. 7 shows bridges 708 and 718.

The Office Action indicates that in claim 36, there is insufficient antecedent basis for the recital of "flywheel that stores energy." Applicant amended claim 36 to recite that "said source includes a flywheel that stores energy." Such a flywheel is shown, for example, in FIG. 1, as a DC flywheel system 128.

The Office Action indicates that in claim 42, there is insufficient antecedent basis for the phrase "selected from the group". Claim 42 recites a Markush group. Applicant respectfully submits that claim 42 is fully proper.

The Office Action indicates that in claim 43, there is insufficient antecedent basis for the term "utilizes." Applicant amended claim 43 to recite the term "includes" rather than "utilizes." Additionally, in view of the rejection of claim 46 (see below), Applicant also amended claim 43 to recite the term "not" instead of "other than."

The Office Action indicates a deficiency in claim 44. Applicant canceled claim 44.

The Office Action indicates a deficiency in claim 45. Applicant canceled claim 45.

The Office Action indicates a deficiency in claim 46. Applicant canceled claim 46.

The Office Action indicated that claims 19 through 21, 23, 24, 27 through 29, 31, 35, and 37 through 41 are indefinite because they each depend on a rejected claim. Applicant respectfully submits that the aforementioned amendments to the claims address the rejection of claims 19 through 21, 23, 24, 27 through 29, 31, 35, and 37 through 41.

Applicant respectfully requests reconsideration and withdrawal of the section 112 rejection of claims 18 through 46.

In section 6 of the Office Action, claims 18, 30 and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by a simple electrical circuit resistance divider. Claim 44 is canceled. Applicant is clarifying an aspect of each of claims 18 and 30 that patentably distinguishes the claims over a simple electrical circuit resistance divider.

Claim 18 provides for a system that includes, *inter alia*, a controller that controls a firing rate of a converter so that a low DC voltage is less than or equal to about 1/10 of a high DC voltage. A simple electrical circuit resistance divider is not a disclosure of a controller that controls a firing rate of a converter so that a low DC voltage is less than or equal to about 1/10 of a high DC voltage, as recited in claim 18. Thus, claim 18 is novel over a simple electrical circuit resistance divider.

Claim 30 provides for a system in which, *inter alia*, a first converter, a second converter and a bridge. A simple electrical circuit resistance divider is not a disclosure of a first, converter, a second converter, and a bridge, as recited in claim 30. Thus, claim 30 is novel over a simple electrical circuit resistance divider.

Claim 44, as mentioned above, is canceled.

Applicant respectfully requests reconsideration and withdrawal of the section 102(b) rejection of claims 18, 30 and 44.

In section 8 of the Office Action, claims 18 through 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,239,978 to Kofink or U.S. Patent No. 6,487,096 to Gilbreth et al. and further in view of U.S. Patent No. 6,463,738 to Pinkerton et al. or common knowledge. Claims 44 through 46 are canceled. Of the remaining rejected claims, two are independent, namely claims 18 and 30. Applicant is clarifying an aspect of each of claims 18 and 30 that patentably distinguishes the claims over the cited combination of references.

Claim 18, as mentioned above, provides for a system that includes, *inter alia*, a controller that controls a firing rate of a converter so that a low DC voltage is less than or equal to about 1/10 of a high DC voltage. The cited references, whether considered independently or in combination with one another, neither disclose nor suggest a controller that controls a firing rate of a converter so that a low DC voltage is less than or equal to about 1/10 of a high DC voltage, as recited in claim 18. Thus, claim 18 is patentable over the cited combination of references.

Claim 30 provides for a system that includes, a first converter that scales a first high DC voltage to a first low DC voltage, a second converter that scales a second high DC voltage to a second low DC voltage, and a bridge that couples said first and second low DC voltages to provide a low DC voltage feed. The cited references, whether considered independently or in combination with one another, neither disclose nor suggest the combination of a first converter and a second converter, and a bridge, as recited in claim 30. Thus, claim 30 is patentable over the cited combination of references.

Claims 19 through 29 depend from claim 18. Claims 31 through 43 depend from claim 30. At least because of these dependencies, claims 19 through 29, and 31 through 43 are all patentable over the cited combination of references.

As mentioned above, claims 44 through 46 are canceled.

Applicant respectfully requests reconsideration and withdrawal of the section 103(a) rejection of claims 18 through 46.

As mentioned above, Applicant amended the claims to address issues under 35 U.S.C. 112, and to clarify aspects of the claims. Additionally, Applicant deleted recitals that do not appear to be necessary for patentability. None of the amendments is intended to narrow the meaning of any term of the claims, and as such, the doctrine of equivalents should be available for all of the elements of all of the claims.

In view of the foregoing, Applicant respectfully submits that all claims presented in this application patentably distinguish over the prior art. Accordingly, Applicant respectfully requests favorable consideration and that this application be passed to allowance.

Respectfully submitted,

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